REMARKS

Claims 1 and 14 have been objected to for the reasons set forth on page 2 of the Examiner's Office Action letter. As the Examiner will note, original claims 1-23 have been replaced with claims 24-57. In presenting the newly added claims, the comments raised by the Examiner with respect to original claims 1 and 14 have been implemented and accordingly, it is believed that the Examiner's objections have been eliminated.

Original claims 1-23 have been rejected by the Examiner under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. This rejection is respectfully traversed.

As the Examiner will note, original claims 1-23 have been cancelled from the present application and replaced with newly added claims 24-57. It is believed that the newly added claims completely eliminate all of the formal rejections with respect to the original claims, and accordingly, it is believed that the Examiner's rejection has been eliminated.

Claims 1-23 have been rejected by the Examiner under 35 USC 102(b) as being anticipated by Miller, U.S. Patent 3,730,016. This rejection is respectfully traversed.

The present invention is directed to a rolling screw with a smaller advance per turn than the pitch of the threading whereby a threaded coupling is provided in which a screw is made to turn inside one or more female screws disposed in a single body or sleeve and where the pitch of the thread of the female screws is equal to that of the main screw, whereas the nominal diameter is greater than that of the main screw itself. Constructively, the main screw is inserted in one or more female screws, the axis of the female screws being parallel to but not coinciding with the axis of the main screw in such a way that contact between the thread of the main screw and the thread of each of the females screws is realized at the generating line of the respective cylindrical surfaces. This relationship can also be achieved when the female screws are not coaxial with respect to each other.

As the Examiner will note original claims 1-23 have been cancelled from the present application and replaced with newly claims 24-57. The newly added claims are presented for the Examiner's consideration in order to emphasize the synchronization aspects of the present invention as well as a rolling screw in which a plurality of female screws are provided, each of

the female screws having the adaptability of being placed in a condition of non-contact with the main screw. The synchronization feature of the present invention is intended to define that cooperation between the main screw and the female screw whereby they rotate together without mutual rotation sliding. The synchronization device can be a simple gear disposed between the screw and the female screw. Accordingly, even without any load, the mutual axial speed movement between the main screw and the female screw is assured and is uniform (constant). Advantageously, friction is generated in the contact point between the main screw and the female screw said friction guaranteeing that the screw and the female screw rotate without mutual rotation sliding. Thus, synchronization guarantees that a rotation of the main screw causes the corresponding desired axial movement of the female screw.

In a further feature of the present invention, one or more female screws are adapted to form a threaded coupling with the external threads of the main screw. Thus, the problems affecting prior art rolling screws relate to the fact that once the pitch of the threadings for the main screw and the single female screw and the diameters of the main screw and the female screw have been selected, the resulting advance per turn of the main screw is predetermined and cannot be modified. The present invention overcomes this problem by providing a rolling screw wherein the advance per turn of the main screw can be modified and adapted to different loads. Thus, by determining which female screw is placed in contact with the main screw, different advances per turn of the main screw can be obtained.

The Miller patent relates to a mechanism for converting rotary motion into linear motion and more particularly, to a mechanism in which the conversion rate of rotary motion to rectilinear motion vary according to applied parameters or may be indexed to different rectilinear speeds. There appears to be no recognition in the Miller patent of the desirability of achieving synchronization in rotation between a main screw and one or more female screws without mutual rotation sliding therebetween. Accordingly, it is believed that the Miller patent cannot possibly anticipate the Applicant's inventive contribution as defined by newly added claims 24-57 of the present application.

Accordingly, in view of the above amendments and remarks reconsideration of the rejections and allowance of all of the claims of the present application are respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Joseph A. Kolasch Reg. No. 22,463 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Dated: March 27, 2009

Respectfully submitted,

By _____
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